

KENWOOD

KTC-9090DAB

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INSTRUCTION MANUAL

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MANUAL DE INSTRUCCIONES

KENWOOD CORPORATION



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- Insert the unit all the way until it is fully locked in place. Otherwise it may fly out of place during collisions and other jolts.
- To prevent short circuits, never put or leave any metallic objects (e.g., coins or metal tools) inside the unit.
- If the unit starts to emit smoke or strange smells, turn off the power immediately and consult your Kenwood dealer.
- Be careful not to drop the unit or subject it to strong shock.

▲CAUTION**To prevent damage to the machine, take the following precautions:**

- Do not open the top or bottom covers of the unit.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- During installation, do not use any screws except for the ones provided. The use of improper screws might result in damage to the main unit.
- When drilling a hole in the car to fix the brackets, make sure not to damage the fuel tank, brake tube, wiring harnesses, etc. on the other side.

NOTE

- If you experience problems during installation, consult your Kenwood dealer.
- If the unit does not seem to be working right, try pressing the reset button on the control unit first. If that does not solve the problem, consult your Kenwood dealer.

Cleaning the Unit

If the front panel is dirty, wipe it clean with a silicon cloth or soft dry cloth with the power off.

▲CAUTION

Do not use hard cloths or paint thinner, alcohol, or other volatile solvents. These may damage external surfaces or remove indicator characters.

IMPORTANT INFORMATION**About the disc changer to be connected:**

To connect a disc changer having the "O-N" switch to this unit, set the "O-N" switch to "N". To connect a disc changer having no "O-N" switch to this unit, the converter cord CA-DS100 and/or switching adapter KCA-S210A are required as options.

A B C D E F

An entrance to KTC-9090DAB

This unit performs operations with a control unit such as a CD receiver or a cassette receiver.

- The control units that can operate this unit are divided into some groups by function. Make sure to which group your control unit belongs. If the operation or the function differs, it is explained group by group.
After confirming the group, read the instructions for the control unit of the corresponding group (page 4 - 10). Then go to the pages for each operation (page 11).
- On the upper right of each feature is a group display. If the group can use that function, it's displayed as "[A]" if it can't, it's displayed as "[A]".
- Content of the display depends on the control unit. In the case that the content of the display is different, both the long name and short name such as "AAAAA"/"BBB" are described.

NOTE

The capital letters and small letters of the display can be reversed.

Model list of Control unit

(As of July, 2001)

"Model Name = Group name, Note number" is described model by model.

KDC-5...

KDC-5016=[B]#1, KDC-5018=[A]#1,
KDC-5060R=[D]#2, KDC-5070R=[C],
KDC-5080R=[B], KDC-5090R=[A],
KDC-515S=[B]#1, KDC-516S=[A]#1,
KDC-57MR=[A]#1,

KDC-6...

KDC-6011=[C], KDC-6012R=[C],
KDC-6015=[B]#1, KDC-6016R=[B],
KDC-6060R=[D]#2, KDC-6070R=[C],
KDC-6080R=[B], KDC-6080RV=[B],
KDC-6090R=[A],

KDC-7...

KDC-7011=[C]#1, KDC-7016=[B]#1,
KDC-7018=[A]#1, KDC-7060R=[D]#2,
KDC-7070R=[C], KDC-7071RY=[C],
KDC-7080R=[B], KDC-7080RV=[B],
KDC-7090R=[A], KDC-715S=[B]#1,
KDC-716S=[A]#1,

KDC-8...

KDC-8011=[C], KDC-8015=[B]#1,

KDC-8016=[B]#1, KDC-8018=[A]#1,
KDC-8060R=[D]#2, KDC-8070R=[C],
KDC-8080R=[B]#3, KDC-8090R=[A],

KDC-9...

KDC-9011=[C], KDC-9012R=[C],
KDC-9015=[B]#3, KDC-9017=[A]#1,
KDC-9060R=[D]#2, KDC-9090R=[A],

KDC-MP...

KDC-MP6090R=[A], KDC-MP7018=[A]#1,
KDC-MP8017=[A]#1,

KDC-PS...

KDC-PS9016R=[B]#3, KDC-PS9018R=[A],
KDC-PS9070R=[C], KDC-PS9080R=[B]#3,
KDC-PS911R=[C], KDC-PS9590R=[A],

KDC-V...

KDC-V6017=[A]#1, KDC-V6090R=[A],
KDC-V7017=[A]#1, KDC-V7018R=[A],
KDC-V7090R=[A],

KDC-X...

KDC-X615=[B]#1, KDC-X617=[A]#1,
KDC-X711=[C], KDC-X715=[B],
KDC-X717=[A]#1, KDC-X811=[C],
KDC-X815=[B]#3, KDC-X817=[A],
KDC-X911=[C], KDC-X915=[B]#3,
KDC-X917=[A],

KDC-Z...

KDC-Z727=[A]#1, KDC-Z828=[A]#1,

KMD-...

KMD-71=[C],
KMD-860R=[D]#2, KMD-870R=[C],
KMD-PS970R=[C], KMD-PS971R=[B]#3,
KMD-X91=[C], KMD-X92=[B]#3,

KRC-5...

KRC-507S=[C], KRC-508S=[B]#1,
KRC-509S=[A]#1, KRC-559R=[D]#2,
KRC-577R=[C], KRC-578R=[B],
KRC-579R=[A], KRC-587=[C]#1,

KRC-6...

KRC-607=[C]#1, KRC-608=[B]#1,
KRC-609=[A]#1, KRC-659R=[D]#2,
KRC-6701RY=[C], KRC-677R=[C],
KRC-678R=[B], KRC-678RV=[B],
KRC-679R=[A], KRC-680R=[B],
KRC-687R=[C], KRC-687W=[C],
KRC-688=[B]#1, KRC-689=[A]#1,

KRC-7...

KRC-708=[B]#1, KRC-709=[A]#1,
KRC-759R=[D]#2, KRC-7701RY=[C],
KRC-777R=[C], KRC-778R=[B],
KRC-778RV=[B], KRC-779R=[A],
KRC-781R=[A], KRC-787=[C]#1,
KRC-788=[B]#1, KRC-789=[A]#1,

KRC-8...

KRC-807=[C]#1, KRC-859C=[D]#2,
KRC-859R=[D]#2, KRC-859W=[D]#2,
KRC-877R=[C], KRC-877W=[C],

KRC-878R=[B]#3, KRC-887R=[C],
KRC-888=[B]#1, KRC-889=[A]#1,

KRC-9...

KRC-977R=[C],

KRC-PS...

KRC-PS1077R=[C], KRC-PS959R=[D]#2,
KRC-PS978R=[B]#3, KRC-PS979R=[A],
KRC-PS987R=[C], KRC-PS988R=[B]#3,
KRC-PS989R=[A],

KRC-V...

KRC-V679R=[A], KRC-V879R=[A],

KRC-X...

KRC-X657=[C], KRC-X858=[B]#3,
KRC-X957=[C],

Z...

Z727=[A]#1, Z828=[A]#1, Z828MP=[A],

Television + Hideaway Tuner Amplifier

KVC-1000 + KTC-1000R=[E],

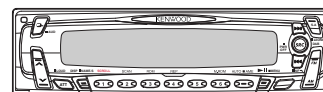
Television DVD Receiver

KVT-910DVD=[F]#1, KVT-920DVD=[F],
KVT-930DVD=[F],

NOTE

- RDS functions can not be used.
For example : "Automatic Switching DAB priority" etc..
- The control unit needs to be upgraded.
Please take your control unit to the Kenwood dealer.
- As for the Programme Type (PTY) Function, [B]⁺ is the group it belong to.

A B C D E F

About operation of A groups

No method for operating the menu is described in the text. Operate the menu mode according to the following instructions.

Menu System**1 Enter the menu mode**

Hold down the [MENU] button for one second or more.
"MENU" is displayed when the menu mode is entered.

2 Selecting function to set

Press either the [FM] or [AM] button to search through the functions until you see the one you want to adjust in the display.

3 Changing setting for currently displayed function

Press either the [◀◀] or [▶▶] button. The setting will change for each function.

NOTE

Depending on the function, some operations can start after pressing the button for at least 1-2 seconds.

4 Ending the menu mode

Press the [MENU] button.

The following setting items are added for the DAB function.

- Switching DAB/SIRIUS*1
- Automatic Switching DAB priority
- Dynamic Range Control (DRC)
- Regional Announcement Function
- Selecting DAB Seek Mode
- Auto Ensemble Memory Entry
- Announcement select mode
- PTY Watch Select Mode
- Language Filter Search Mode

***1 To the users of KDC-X917/ X817/ X717/ 9017/ V7017/ 716S, Z828, Z727.**

Before using, set the "SW DAB/SIRIUS" in the menu to switch to "DAB".

NOTE

An incorrect setting may cause a false display of the name.

A B C D E F

About operation of B groups

No method for operating the menu is described in the text. Operate the menu mode according to the following instructions.

Menu System

1 Enter the menu mode

Hold down the [MENU] button for one second or more.
"MENU" is displayed when the menu mode is entered.

2 Selecting function to set

Press either the [FM] or [AM] button to search through the functions until you see the one you want to adjust in the display.

3 Changing setting for currently displayed function

Press either the [◀◀] or [▶▶] button. The setting will change for each function.

NOTE

Depending on the function, some operations can start after pressing the button for at least 1-2 seconds.

4 Ending the menu mode

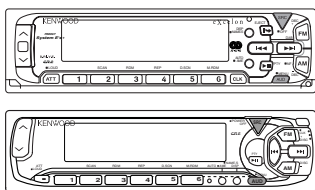
Press the [MENU] button.

The following setting items are added for the DAB function.

- Automatic Switching from DAB to RDS
- Dynamic Range Control (DRC)
- Regional Announcement Function
- Selecting DAB Seek Mode
- Auto Ensemble Memory Entry
- Announcement select mode
- PTY Watch Select Mode
- Language Filter Select Mode

A B C D E F

About operation of C groups



No method for operating the menu is described in the text. Operate the menu mode according to the following instructions.

Menu System

1 Enter the menu mode

Hold down the [MENU] button for one second or more.
"MENU" is displayed when the menu

mode is entered.

2 Selecting function to set

Press either the [◀◀] or [▶▶] button to search through the functions until you see the one you want to adjust in the display.

3 Changing setting for currently displayed function

Press either the [AM] or [FM] button. The setting will change for each function.

NOTE

Depending on the function, some operations can start after pressing the button for at least 1-2 seconds.

4 Ending the menu mode

Press the [MENU] button.

The following setting items are added for the DAB function.

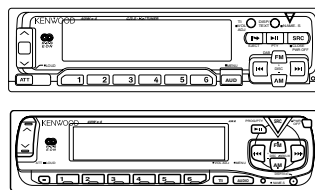
- Traffic Announcement Function*2
- News Bulletin Function*2
- Selecting DAB Seek Mode
- Automatic Switching from DAB to RDS
- Dynamic Range Control (DRC)
- Regional Announcement Function
- Auto Ensemble Memory Entry

NOTE

*2 This setting is common with both the DAB source and RDS source. Set in the same manner as the operation of the same function of the RDS. In the case that the RDS function is not set in the menu, the item is not displayed.

A B C D E F

About operation of D groups



No method for operating the menu is described in the text. Operate the menu mode according to the following instructions.

Menu System

1 Enter the menu mode

Hold down the [MENU] button for one second or more.

"MENU" is displayed when the menu mode is entered.

2 Selecting function to set

Press either the [◀◀] or [▶▶] button to search through the functions until you see the one you want to adjust in the display.

3 Changing setting for currently displayed function

Press either the [AM] or [FM] button. The setting will change for each function.

NOTE

Depending on the function, some operations can start after pressing the button for at least 1-2 seconds.

4 Ending the menu mode

Press the [MENU] button.

The following setting items are added for the DAB function.

- Traffic Announcement Function*2
- News Bulletin Function*2
- Selecting DAB Seek Mode
- "DUAL MAIN"/"MAIN"/"DUAL SUB"/"SUB"*3
- Automatic Switching from DAB to RDS
- Dynamic Range Control (DRC)
- Regional Announcement Function
- "DATA-SRV"*3

NOTE

*2 This setting is common with both the DAB source and RDS source. Set in the same manner as the operation of the same function of the RDS. In the case that the RDS function is not set in the menu, the item is not displayed.

*3 This item can be set, but the function doesn't work.

A B C D E F

About operation of E groups

Control Function

DAB Control Screen (Main)



DAB Control Screen (Shift)



[◀◀] / [▶▶] button

Each time [◀◀] / [▶▶] is touched for at least 1 second the Ensemble switches in the way selected in Seek mode.
Touch [◀◀] / [▶▶] to switch services.
⇒ DAB Reception. (page 12)

[S+] / [S-] button

Touch [S+] / [S-] to switch services.
⇒ DAB Reception. (page 12)

[BAND] button

Touch [BAND] to switch the Pre-set band.
⇒ Service Preset Memory. (page 13)

[P1] - [P6] button

Touch [P1] - [P6] to register and call up the Service.
⇒ Service Preset Memory. (page 13)

[SEEK] button

Touch [SEEK] to switch the Seek mode.
⇒ Selecting DAB Seek Mode. (page 12)

[AME] button

- 1 Touch [AME].
- 2 Touch [◀◀] or [▶▶] to start auto ensemble memory entry.
⇒ Auto Ensemble Memory Entry. (page 13)

[P/S] button

Touch [P/S] to switch the Service component.
⇒ Primary/Secondary Switching. (page 13)

[TI VOL] button

Touch [TI VOL] for at least 2 seconds to register the volume for the Announcement.
⇒ Presetting Volume for Announcement. (page 19)

[TITLE] button

Touch [TITLE] to switch the display item.
⇒ Display Switching for DAB. (page 14)

[TI] button

Touch [TI] to switch the interrupting function of the Traffic Announcement on/off.
⇒ Traffic Announcement Function. (page 19)

[PTY] button

Touch [PTY] to the DAB PTY Search Screen.

[SRV] button

Touch [SRV] to the DAB Service List screen.

DAB PTY Search Screen

Refer to the DAB PTY Search Screen together with the PTY Search Screen of the KVC-1000.

[▲] / [▼] button and PTY item

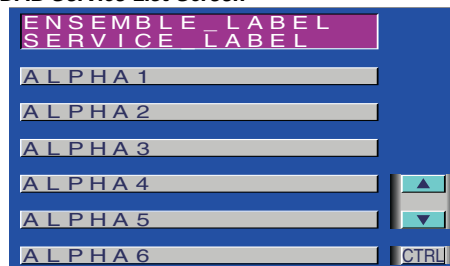
- 1 Touch [▲] / [▼] to switch the list.
- 2 Touch the name of the PTY to search by the selected type.
⇒ Programme Type (PTY) Function. (page 15)

[LANG.] button

Touch [LANG.] to display the name of the language currently used.

[CTRL] button

Touch [CTRL] to return to the source control screen.

DAB Service List Screen**Menu item 1 - 6 button**

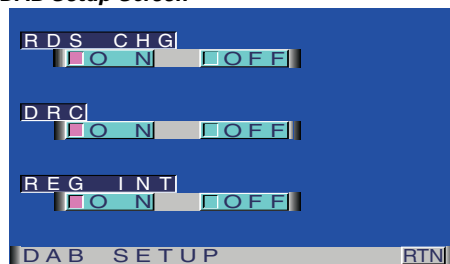
Touch the name of the Service to switch to the selected Service.

[▲] / [▼] button

Touch [▲] / [▼] to switch the display item.

[CTRL] button

Touch [CTRL] to return to the DAB control screen.

Setup Function**DAB Setup Screen**

As for operation on the DAB Setup Screen, refer to the System Setup Function of the KVC-1000.

[RDS CHG] button

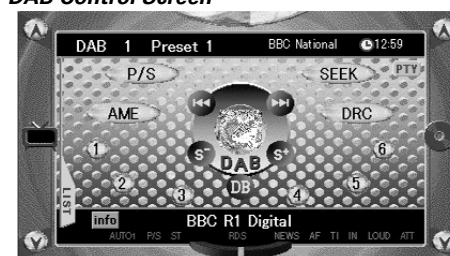
⇒ Automatic Switching from DAB to RDS. (page 21)

[DRC] button

⇒ Dynamic Range Control (DRC). (page 20)

[REG INT] button

⇒ Regional Announcement Function. (page 20)

About operation of F groups**Control Function****DAB Control Screen****[SEEK] button**

Touch [SEEK] to switch the Seek mode.
⇒ Selecting DAB Seek Mode. (page 12)

[◀] / [▶] button

Each time [◀] / [▶] is touched the Ensemble switches the way selected in Seek mode.
⇒ DAB Reception. (page 12)

[S+] / [S-] button

Touch [S+] / [S-] to switch services.
⇒ DAB Reception. (page 12)

[P/S] button

Touch [P/S] to switch the Service component.
⇒ Primary/Secondary Switching. (page 13)

[DB] button

Touch [DB] to switch the Pre-set band.
⇒ Service Preset Memory. (page 13)

[1] - [6] button

Touch [1] - [6] to register and call up the Service.
⇒ Service Preset Memory. (page 13)

[AME] button

- 1 Touch [AME].
- 2 Touch [◀] or [▶] to start auto ensemble memory entry.
⇒ Auto Ensemble Memory Entry. (page 13)

[DRC] button

Touch [DRC] to switch the DRC function ON/OFF.
⇒ Dynamic Range Control (DRC). (page 20)

[LIST] button

Touch [LIST] to the DAB Service List Screen.

[info] button

Touch [info] to the DAB Information Screen.

[PTY] button

Touch [PTY] to the DAB PTY Search Screen.

DAB Service List Screen

Service Labels in the Ensemble being received are displayed.

[▲] / [▼] button

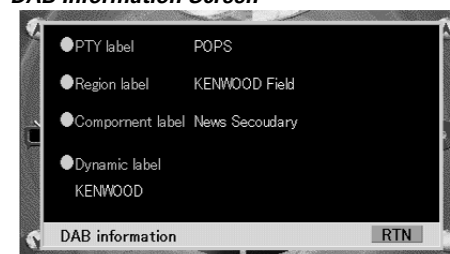
Touch [▲] / [▼] to switch the display item.

[MAIN] button

Touch [MAIN] to return to the DAB Control Screen.

[1] - [6] button

Touch [1] - [6] to switch to the selected Service.

DAB Information Screen

As for the content of the display item, refer to the "Display Switching for DAB" (page 14).

[RTN] button

Touch [RTN] to return to the DAB Control Screen.

DAB PTY Search Screen



[↕] / [↖] button

Touch [↕] / [↖] to switch to the display item.

[1] - [5] button

Touch [1] - [5] to select the 5 items being displayed.

[SEARCH] button

Touch [SEARCH] to search a Service in the Ensemble by the selected PTY.
⇒ Programme Type (PTY) Function. (page 15)

[Watch] button

Touch [Watch] to register the selected PTY in the Watch.
⇒ PTY Watch Select Mode. (page 16)

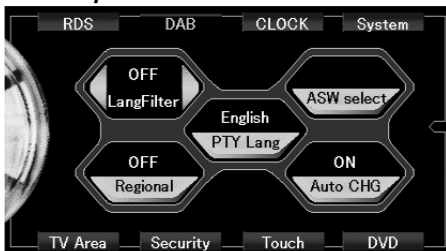
[RTN] button

Touch [RTN] to return to the DAB Control Screen.

Setup Function

As for operation on the DAB Setup Screen, refer to the System Setup Function of the control unit.

DAB Setup Screen



[LangFilter] button

Touch [◀] / [▶] to switch the language to be filtered.
⇒ Language Filter Select Mode. (page 17)

[Regional] button

⇒ Regional Announcement Function. (page 20)

[PTY Lang] button

Touch [PTY Lang] to switch the language displaying the PTY.

[ASW select] button

Touch [ASW select] to the DAB Announcement select Screen.

[Auto CHG] button

⇒ Automatic Switching DAB priority. (page 20)

DAB Announcement select Screen



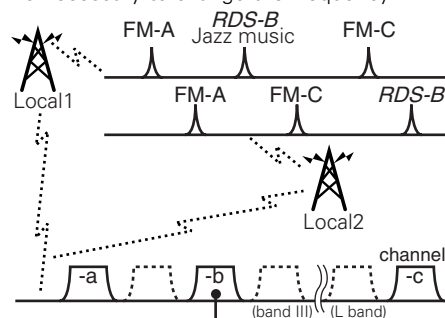
Touch each item to switch ON/OFF.
⇒ Announcement select mode. (page 18)

[RTN] button

Touch [RTN] to return to the DAB Setup Screen.

About DAB (Digital Audio Broadcasting)

Thanks to the transmission of broadcast signals in digital format, the DAB system can reproduce clearer audio than conventional analogue broadcasting and stabilise reception even in a mobile object such as a vehicle. In existing analogue broadcasting (e.g., FM), for a broadcast station to broadcast one programme the frequency must be changed and transmitted for each region and when travelling over long distances it is necessary to change the frequency.



DAB-b.....Ensemble provider

- Pops music.....Services
 - Dynamic Label: Song name, singer, song introduction, and other textual information related to the programme.
- Jazz music
 - Link Function: Where is the same programme being broadcast? For example: RDS-B
- News
 - Primary: English
 - Secondary: French
 - Secondary: German
 - Secondary: Dutch
 - Secondary: Italian
- Sports
 - Primary: Regular audio
 - Secondary: A team fans
 - Secondary: B team fans
- Parliament relay
- Traffic news announcement
- Alarm announcement
- Data Service

The DAB allots transmitting channels to the stations in the same manner as in a TV station, allowing one single channel to cover the whole area. A station

broadcasting through the channel is called an Ensemble (Ensemble provider), providing more than one Service. The Services include the Audio programme and Data service.

Also, the Services include various Service Information such as the Service Label (name), network information, etc. For example, information such as an RDS station broadcasts is the same programming as with the DAB services provided.

Based on this data, when it is no longer possible to receive the DAB, there will be automatic switching to the RDS station which will allow continued monitoring of the Service.

* Programme organisation has been created for descriptive purposes and differs from actual broadcasts. Also note that depending on time, the number of programmes is subject to change.

Audio programme service consist of;

• Audio Modes

There are three modes: stereo, joint stereo, and single channel (e.g., mono).

• Sound Quality

There are a variety of levels which range from sound quality on par with a telephone to highquality sound at the level of CD. There is also a mode that cuts the sampling frequency in half to raise the transfer efficiency. Audio mode and sound quality are each used to advantage in broadcasts depending on the contents of the Service (Audio programme). In addition, the textual information (Dynamic Label) related to the service (Audio programme) can be transmitted.

Alarm announcement;

When an emergency programme is broadcast in case of a disaster, all functions are interrupted and switched to the alarm announcement.

Selecting DAB Mode

Press the [SRC] button repeatedly until DAB mode is obtained. "DAB" is displayed when the DAB mode is selected.
The DAB indicator lights whilst the DAB mode.

NOTE

Refer to the Source mode page in each manual for groups [E] and [F].

Selecting DAB Seek Mode

Select the method how to select an ensemble.

- 1 Display the menu mode using the control unit and select a setting item.
- 2 **Selecting Tuning Mode:**
Switch the setting of the menu items.
"Seek Mode Auto 1"/"AUTO 1"/"AUTO":
Auto Ensemble Seek
"Seek Mode Auto 2"/"AUTO2":
Pre-set Service Call
"Seek Mode Manual"/"MANUAL":
Manual Seek
- 3 Exit from the menu mode.

[E] and [F] group:

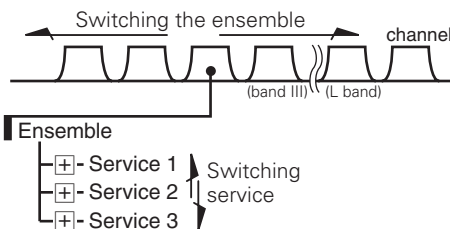
Touch [SEEK] to switch the Seek mode.

NOTE

- The same setting items are displayed in each of the DAB mode and the TUNER mode, but settings for the DAB source are available from within the DAB mode and settings for the TUNER source are available from within the TUNER mode.
- As for [D] group, the Pre-set Service Call of the AUTO2 cannot be set.

DAB Reception

In DAB, select Ensemble and then choose Service (Audio programme).



1 Switching the ensemble

It changes by the selected method. If the [▶▶] button is pressed for at least 1 second, it moves in the larger direction. If the [◀◀] button is pressed for at least 1 second, it moves in the smaller direction.

As for [F] group, touch [◀◀] / [▶▶] on the DAB Control Screen

- In Auto Ensemble Seek mode ("AUTO1" on or "AUTO" on)
An Ensemble in good receiving condition can be selected and received.
- In Pre-set Service Call mode ("AUTO2" on)
Services registered can be called in the order of the Pre-set number.
- In Manual Seek mode ("AUTO" off or "MANU" on)
Channels are switched one after another.

2 Switching service

Press the [▶▶] button to switch the Services in the Ensemble one after another. The service label of each service is shown on the display. Pressing the [◀◀] button to switches the services in the reverse order.
As for [F] group, touch [S+] / [S-] on the DAB Control Screen

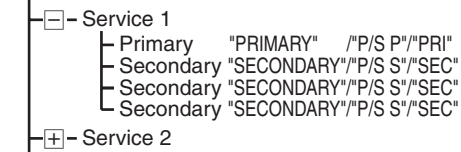
NOTE

- Switching the Service causes a break-off of the sound for about one second.
- The number of services is variable depending on the ensemble.
- There is no switching to data service.
- The ST indicator lights during reception of a Stereo Audio programme.
- As for [E] and [F] group, Services can be switched directly whilst the Service list is being displayed (page 7-10).

Primary/Secondary Switching

The Primary and Secondary can be switched with services that are composed of more than one service components.

Ensemble



Each time the [AM] button is pressed the Service components are switched.
As for [E] and [F] groups, touch [P/S] on the DAB Control Screen.

NOTE

- When Secondary service exists in Service [A], [B] and [C]: The P/S indicator is ON.
[E]: The PR indicator is ON.
[F]: The P/S indicator is ON blue.
When Secondary service is selected.
[A], [B] and [C]: The P/S indicator blinks.
[E]: The SC indicator is ON.
[F]: The P/S indicator is ON red.
- The Primary is selected automatically when the service is switched or the unit is turned off.
- The number of service components is variable depending on the service.
- The Primary/Secondary switching is not available when the service has only one service component or its Secondaries consist of data services.
- As for [B] and [F] group, set the desired language in the "Language Filter Select Mode" to switch to only the set language. If the selected language has no Secondary, switching to the Secondary is not possible (page 17).

Service Preset Memory

The service being received can be stored in memory under a preset button.

- 1 Press the [FM] button to select the preset band.
As for [E] and [F] groups, touch [BAND] / [DB] on the DAB Control Screen
Each time you press the button, the preset band switches between DAB1, DAB2 and DAB3.

- 2 Receive the service to be preset.
- 3 Hold down the preset button ([1] - [6]) to preset the service for two seconds or more.
The service is preset when the number of the button blinks once.

Recalling a Preset Service:

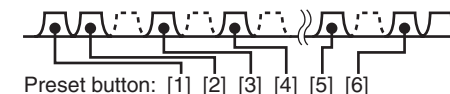
Press the [FM] / [BAND] / [DB] button to select the preset band, and press the desired preset number button ([1] - [6]).
The number of the pressed button is shown in the display.

NOTE

- If ensemble is switching, it may take some time until there is sound.
- Up to 6 services can be preset in each of preset bands DAB1, DAB2 and DAB3.
- As the preset memory consists of the storage of services, the distinction of Primary and Secondary service components is not preset. The Primary service component is received when a service is recalled.
- If no Service is being received, it cannot be stored in memory.
- Preset bands DAB1, DAB2 and DAB3 refer to the bands for use in preset memory and do not mean different receiving bands.

Auto Ensemble Memory Entry

Ensembles that can be received through the pre-set band currently being heard are automatically stored in memory one after another. A representative Service of the Ensembles stored in memory can be called up with a one-touch operation. This function is convenient in such cases as when on a journey where one has no idea what ensemble is available. Up to 6 ensemble can be stored this way.



- 1 Select the preset band for auto ensemble memory entry.
- 2 Auto ensemble memory entry allows "Auto Memory"/"A-MEMORY" to be displayed.
- 3 Press the setting button of the menu items on the control unit for at least 1

second to start the Auto ensemble memory entry.
After storing in the memory finishes, the number of the pre-set buttons and the ensemble label are displayed.

[E] and [F] group:

- 1 Touch [AME].
- 2 Touch [◀◀] or [▶▶] to start auto ensemble memory entry.

Recalling a Preset Service:

Press the [FM] / [BAND] / [DB] button to select the preset band, and press the desired preset number button ([1] - [6]). The number of the pressed button is shown in the display.

[A][B][C][D][E][F]

Display Switching for DAB

The information shown in the display can be selected.

Switching the Display:

Each time the [DISP] / [CLK] button is pressed the display item is switched.
As for [E], [F]-group, touch [TITLE] / [info] on the DAB Control Screen

Display item	Display
Ensemble label	"Ensemble Label"/ "Ensemble"
Service label	"Service Label"/ "Service"
Dynamic label	"Dynamic Label"/ "Dynamic"
Received	"Frequency"/ "FREQ"
Frequency	
PTY label	"PTY Label"/ "PTY"
Component label	"Component Label"/ "Component"/ "COMP"
Audio quality	"Audio Quality"/ "Quality"
Region label	"Region Label"/ "Region"

Ensemble label:

Displays the name of the ensemble being received.

Service label:

Displays the name of the service being received.

Component label:

Displays the name of the Audio service component (Primary / Secondary) being received.

Dynamic label:

Displays the textual information related to the Audio programme. (As for the scrolling method, refer to the Radio text

Scroll or Text Scroll of the control unit.)

PTY label:

Displays the Programme Type (PTY) of the service being received.

Audio quality:

Displays the sound quality information of the Audio service being received.
Kbps: Transmission speed (The larger, the higher the sound quality becomes.)
kHz: Sampling frequency
P#: Protection level (Correcting error level)
Example: "384 kbps 48 kHz P5"/"384 kbps"

Region label:

Displays the name of the area of the ensemble being received.

NOTE

- Whilst signals are not being provided by the providers or being stored in memory, each label displays such messages.
- When the control unit cannot indicate 16 letters within a line, the display of each label is abbreviated within eight letters.
- Depending on the kind of letters used in each display, some may not be possible to display.
- The setting of the ON/OFF for the auto scroll is common with the setting of the Text Scroll for the CD mode and the disc changer mode of the control unit.
- Items mentioned above are the display items for the DAB. The number of display items such as watches, characters, etc. and the order of the display depend on the control unit. (Refer to the operation manual of the control unit at the same time.)

[A][B][C][D][E][F]

Programme Type (PTY) Function

This function permits desired programme types from within the received Ensemble to be searched and monitored.

1 Entering PTY Selection Mode:

Press the [▶II](PTY) button.
"PTY" is displayed and the Programme Type Selection (PTY) Mode entered.

NOTE

This function cannot be used during the interruption of the announcement/PTY Watch.

2 Select the programme type

- Each time the [FM] / [AM] button is pressed the programme type switches. As for the available programme type, refer to the "Programme Type Display".
- Press the pre-set button for direct selection. Default settings are pre-set as follows:
[1].Music [2].Speech
[3].News [4].Other Music
[5].Serious Classics [6].Varied

NOTE Changing the preset programme types

Select the programme type to be preset and hold down a preset button ([1] - [6]) for two seconds or more. The previously preset programme type is cleared and replaced with the newly selected programme type.

3 Search a service of the selected programme type

Press the [◀◀] / [▶▶] buttons to start searching for the selected programme type. When the selected programme type is found, the letters indicating the result of the search (Service label, etc.) are displayed and the programme is received.

NOTE

If the selected programme type is not found, the message ("NO PTY", etc.) is displayed.
When searching for a service of another programme type, repeat procedures 2 and 3.

Switching to Another Service:

Repeat procedure 3.
Another service of the same programme type will be searched.

Cancelling Search In the Middle:

Press the [▶II](PTY) button.

NOTE

This setting is valid only with the DAB source. The similar function for the RDS source can be set during reception of an FM station in the tuner mode.

Searching by programme type and language: [A][B]⁺[C][D][E][F]

- 1 Press the [DISP] button whilst in programme type selection mode.
- 2 **Selecting a language:**
Each time the [FM] / [AM] button is pressed the language is switched. As for the available languages, refer to the "Language Filter Search Mode"/ "Language Filter Select Mode". (page 17)
- 3 **Searching by the selected programme type and language:**
Press the [◀◀] / [▶▶] button to start searching.
- 4 Exiting: Press the [DISP] button.

Languages to be displayed:

[A][B][C][D][E][F]

[A] and [B]⁺ group

Select English, French, German, Dutch, Spanish, Portuguese, Norwegian or Swedish in "Language Filter Search Mode"/ "Language Filter Select Mode" to display in the selected language. (page 17)

[B], [C] and [D] group (except for [B]⁺)

- 1 [B]: Press the [DISP] button whilst in programme type selection mode.
[C], [D]: Press the [▶II](PTY) button for at least 1 second whilst in programme type selection mode.
- 2 Press the pre-set button of the desired language.
English is [1], French is [2], German is [3] and Swedish is [4].
- 3 Exiting: Press the [DISP] button.

NOTE

As for [D] group, Swedish is not available.

[A][B][C][D][E][F]

Programme Type (PTY) Function

This function permits desired programme types from within the received Ensemble to be searched and monitored.

E group

- 1 Touch [PTY] on the DAB Control Screen.
- 2 Touch [▲] / [▼] to switch the list.
- 3 Touch the name of the PTY to search by the selected type.

Cancelling Search In the Middle:
Exiting: Touch [CTRL].

F group

- 1 Touch [PTY] on the DAB Control Screen.
- 2 Switch the display item on the DAB PTY Search Screen and press buttons [1] - [5] to select a PTY.
- 3 Touch [SEARCH] to start searching.

Cancelling Search In the Middle:
Exiting: Touch [RTN].

Languages to be displayed:

A B C D E F

Select a language by touching the [Lang] / [PTY Lang] on the DAB PTY search Screen for [E] (page 8) and on the DAB Setup screen for [F] (page 10) to display in the selected language.

A B C D E F

PTY Watch Select Mode

After registering a desired programme type, when the programme in the registered type starts in the Ensemble being received, the Service is automatically switched.

- 1 Select menu mode using the control unit. Select the menu item. Select PTY watch select mode to display the "PTY Watch"/"PTYW SEL".
- 2 Press the setting button of the menu items on the control unit for at least 1 second to switch to PTY watch select mode.
- 3 **Switching the setting.**
Each time the [FM] or [AM] button is pressed the programme type is switched.
PTY Watch off ↔ 1.- 29. ↔
As for available programme types, refer to the "Programme Type Display".
- 4 Exit menu mode.

NOTE

- Finish the selected PTY programme to return to the previous service.
- The "All Music"/"MUSIC" and "All Speech"/"SPEECH" in the table of the "Programme Type Display" cannot be selected.
- As for [F] group, it is operated on the DAB PTY Search Screen. PTY watch can be turned OFF by "32.NONE."

A B C D E F

Programme Type Display

Programme type	Display
1. News	"News"/ "NEWS"
2. Current Affairs	"Current Affairs"/ "AFFAIRS"
3. Information	"Information"/ "INFO"
4. Sport	"Sport"/ "SPORT"
5. Education	"Education"/ "EDUCATE"
6. Drama	"Drama"/ "DRAMA"
7. Culture	"Cultures"/ "CULTURE"
8. Science	"Science"/ "SCIENCE"
9. Varied	"Varied Speech"/ "VARIED"
10. Pop Music	"Pop Music"/ "POP M"
11. Rock Music	"Rock Music"/ "ROCK M"
12. Easy Listening Music	"Easy Listening M"/ "EASY M"/ "M.O.R M"
13. Light Classical	"Light Classic M"/ "LIGHT M"
14. Serious Classical	"Serious Classics"/ "CLASSICS"
15. Other Music	"Other Music"/ "OTHER M"
16. Weather	"Weather& Metr"/ "WEATHER"
17. Finance	"Finance"/ "FINANCE"
18. Children's programmes	"Children's Prog"/ "CHILDREN"
19. Social Affairs	"Social Affairs"/ "SOCIAL"
20. Religion	"Religion"/ "RELIGION"
21. Phone	"Phone In"/ "PHONE IN"
22. Travel	"Travel & Touring"/ "TRAVEL"
23. Leisure	"Leisure & Hobby"/ "LEISURE"
24. Jazz Music	"Jazz Music"/ "JAZZ"
25. Country Music	"Country Music"/ "COUNTRY"
26. National Music	"National Music"/ "NATION M"
27. Oldies Music	"Oldies Music"/ "OLDIES"
28. Folk Music	"Folk Music"/ "FOLK M"

29. Documentary	"Documentary"/ "DOCUMENT"
30.(Music)	"All Music"/ "MUSIC"
31.(Speech)	"All Speech"/ "SPEECH"

NOTE

- Speech...1~9, 16~23, 29 :
Music...10~15, 24~28
- In the "PTY Watch Select Mode" the "All Music"/"MUSIC", "All Speech"/"SPEECH" cannot be selected.
- [F] group adds the item "32.NONE".

A B C D E F

Language Filter Search Mode

Audio programmes only in the desired language can selectively be received in the Ensemble.

Setting:

- 1 Select menu mode using the control unit. Select the menu item. Select Language filter Search mode to display the "Language Search"/"LANG SEARCH".
- 2 Press the setting button of the menu items on the control unit for at least 1 second to switch to Language filter Search mode.
- 3 **Switching the setting.**
Each time the [FM] or [AM] button is pressed the setting is switched in the order as shown below:

☐ Filter Off	* Norwegian
☐ Welsh	* Portuguese
☐ Danish	Finnish
* German	* Swedish
* English	Flemish
* Spanish	Urdu
* French	Swahili
☐ Irish	Punjabi
☐ Gaelic	Hindi
☐ Italian	Gujarati
* Dutch	Bengali

- 4 **Searching for a programme in the selected language.**

Press the [◀◀] / [▶▶] button to start searching for a programme in the selected language.

NOTE

If no programme in the selected language is found, "Language n/a" is displayed. For searching another programme in another

language, repeat procedures 2 and 3.

Switching to another programme:

Repeat procedure 4.
Searching for another programme in the newly selected language starts.

Cancelling Search In the Middle:

Exit menu mode.

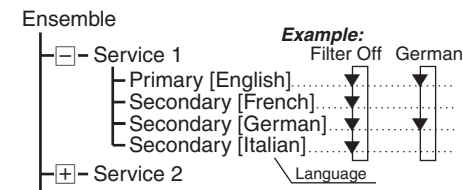
NOTE

- A programme in the ensemble is selected regardless of the Service or the Primary/Secondary setting.
- Search using a language with the "*" to display the type of PTY and the Announcement Select into the selected language. Search using another language to display in English.
- Search a programme with the "Filter Off" to search programmes in all languages.

A B C D E F

Language Filter Select Mode

In the case that a service provider provides a multi-lingual audio programme, setting to switch only to the Secondary of the desired language is possible.



Setting:

- 1 Select menu mode using the control unit. Select the menu item. Select Language filter select mode to display the "LANG Filter"/ "LANG FIL".
- 2 Press the setting button of the menu items on the control unit for at least 1 second to switch to Language filter select mode.
- 3 **Switching the setting.**
Each time the [FM] or [AM] button is pressed the setting is switched in the order as shown below:

	Filter Off	*	Norwegian
	Welsh	*	Portuguese
	Danish		Finnish
*	German	*	Swedish
*	English		Flemish
*	Spanish		Urdu
*	French		Swahili
	Irish		Punjabi
	Gaelic		Hindi
	Italian		Gujurati
*	Dutch		Bengali

4 Exit menu mode.

- [F] group**
Setting can be carried out on the DAB Setup Screen. (page 10)

NOTE

- Select a language with the "*" to switch the language of the Announcement. Select into the selected language. Select another language to switch to English. (except for **[F]**)
- As for only **[B]**⁺ group, select a language with the "*" to switch the language of the Announcement Select and the type of PTY into the selected language. Select another language to switch to English.
- If the selected language has no Secondary, switching to the Secondary is not possible.

A B C D E F

Announcement select mode

Either accepting or not accepting the interruption of each announcement provided by Ensemble providers can be set by each type.
Even whilst receiving another source, when the set announcement starts, the source is switched automatically.

Example:

Audio programme	Interrupt
"*Traffic news"	
"*News"	
"*Weather"	

Setting:

- 1 Select menu mode using the control unit. Select the menu item.
Select Announcement select mode to display "ASW Select"/"ASW SEL".
- 2 Press the setting button of the menu items in the control unit for at least 1 second to switch to Announcement select mode.
- 3 Each time the [FM] or [AM] button is pressed the setting is switched in the order as shown below:

	Display	Contents
*	"Alarm"	Danger to life due to outbreak of war etc., Information on important items
	"Traffic news"	Traffic information
	"Transport news"/"Travel News"	Time table information of public transportation services
	"Warning"	Lower priority items than Alarm (power failure, cut-off of the water supply, etc.)
	"News"	News flash
	"Weather"	Weather forecasting
	"Event"	Event information
	"Special event"	Undetermined event information
	"Radio info"	Programme information, advance notice
	"Sports news"	Sports news
	"Financial news"	Financial news

4 Switching the setting

Press the [**◀▶**] or the [**▶▶**] button.
Indication of the "*" at the front of a

display item means that interruption of the item is permitted.

5 Exit menu mode.

[F] group

Setting can be carried out on the DAB Setup Screen. (page 10)

Exiting the interruption:

Switch the setting of the interruption of the item being interrupted from permission to prohibition.

NOTE

- The setting of the interruption of the "Alarm" is always ON. Switching to OFF is not possible.
- During an interruption another announcement cannot interrupt the item.

Languages to be displayed (except for [F] group)

Select English, French, German, Dutch, Spanish, Portuguese, Norwegian or Swedish in "Language Filter Search Mode"/"Language Filter Select Mode" to display in the selected language. (page 17)

A B C D E F

Traffic Announcement Function

Traffic information can be received automatically. It is also possible to play a tape or disc whilst waiting for a traffic announcement programme to start.

Turning Traffic Announcement Function On/Off:

- 1 Set this function referring to the "Traffic Information Function" of the control unit. If the [TI] button is not provided set through the menu.
Traffic Announcement Function is displayed as "TI".
- 2 When the function is on, the TI indicator is turned on.
In the case of an Ensemble provider supporting the Traffic Announcement, the TI indicator is turned on.
When a Traffic Announcement programme starts, "TRAFFIC INFO"/"TRAFFIC" is displayed, adjusting the volume to the set level.
When a traffic information programme starts whilst playing a tape or a disc, automatic switching to the traffic information happens.
Either an ending of the traffic

information or deterioration of the receiving signal results in switching back to the previous source.

3 Exit menu mode.

NOTE

- This setting is valid for both the DAB and RDS sources.
- As for **[D]** group, turning the function ON causes the TI indicator light up and an interruption causes the TA indicator to turn on. In the case that the Ensemble supports the Traffic Announcement, the TP indicator turns on.

A B C D E F

News Bulletin Function with Announcement News Timeout Setting

The News Bulletin information can be listened to in priority by overriding another programme or source. When this function is turned on, the interval for allowing the overriding of news (news timeout period) can be set in the range between 10 and 90 minutes.

- 1 Set this function referring to the "News Bulletin Function with PTY News Timeout Setting" of the control unit.
- 2 Starting the News Announcement programme causes the NEWS indicator to blink, adjusting the volume to the set level.

NOTE

- This setting is valid for both the DAB and RDS sources.
- This function cannot be used if the "RDS function" and the "News Bulletin Function with PTY News Timeout Setting" are not provided for in the control unit.
- As for **[E]** group, refer to the "News Bulletin Function with PTY News Timeout Setting" of the RDS function.

A B C D E F

Presetting Volume for Announcement

Pre-setting the volume unique to announcements is possible.

- 1 Receive a DAB station.

- Adjust the volume for the announcement.
- Press the [TI VOL ADJ] button for at least 2 seconds. An indication of the volume blinks once and the volume is stored in the memory. Announcements can be heard at this volume.

NOTE

- This setting is valid for both the DAB and RDS sources.
- This function cannot be set if the "Pre-setting Volume for Traffic Information/News" function of the RDS function is not provided for in the control unit.
- This function does not reduce the listening volume in the DAB and tuner modes. The volume set here is recalled only when it is larger than the volume which is currently used in the DAB or tuner mode.
- Setting the volume unique to the announcement and turning Announcement select mode on with the minimum volume results in only the desired announcement being heard.
- As for [E] and [F] group, refer to the "Pre-setting the Volume for Traffic Information/News" of the RDS function.

A B C D E F

Regional Announcement Function

The interruption of the announcement such as the Alarm of either a restricted region where the programme is being received (regional restriction ON) or all regions (regional restriction OFF) can be selected.

Turning Regional Announcement Function On/Off:

- Display the menu mode using the control unit and select a setting item.
- Switching the setting.**
Switch the setting of menu items.
"REG ASW"/ "REG INT"/ "REGA"/ "REG"/ "Regional ASW"
"ON": Regional on
"OFF": Regional off
- Exit menu mode.

[E] and [F] group

Set this function on the DAB Setup Screen. (page 8, 10)

NOTE

This setting is valid only with the DAB source. The similar function for the RDS source can be set during reception of an FM station in the tuner mode.

A B C D E F

Dynamic Range Control (DRC)

In the case that the producer of a programme wants to adjust dynamic range, DRC information is transmitted. Whether to receive the DRC or not can be selected and set according to listeners' preference.

- Display the menu mode using the control unit and select a setting item.
- Switching the setting.**
Switch the setting of menu items.
"DRC ON": Functioning
"DRC OFF": Not functioning
- Exit menu mode.

[E] group

Set this function on the DAB Setup Screen. (page 8)

[F] group

Touch [DRC] on the DAB Control Screen.

NOTE

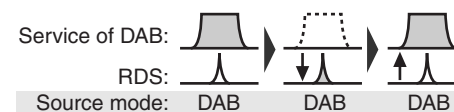
- As the dynamic range is changed based on the Dynamic Range Control information sent from a Service provider, this function does not work whilst no information is being transmitted from the Provider.
- When the Dynamic Range Control (DRC) is set ON, the sound volume is somewhat lower. Also, if the DRC data can't be cleanly demodulated, the DRC may be invalid.

A B C D E F

Automatic Switching DAB priority

RDS/DAB provides information when the DAB service and RDS station are broadcasting the same programme. When the receiving signal of a DAB station deteriorates, the reception can be switched automatically to the RDS station broadcasting the same radio programme, allowing listeners to continue listening to the same programme. On the contrary, when an RDS station is

being received, the reception can be switched automatically to the DAB station broadcasting the same radio programme, allowing the same programme to be heard at a higher sound quality.



- Display the menu mode using the control unit and select a setting item.
- Switching the setting.**
Switch the setting of menu items.
"DAB PRIORITY"/ "DAB-P"
"ON": Functioning
"OFF": Not functioning
- Exit menu mode.

[E] group

Set this function on the DAB Setup Screen. (page 10)

NOTE

- When the receiving signal of a DAB station deteriorates, the reception can be switched to the RDS station, however, when the receiving signal of a DAB station recovers, the reception can be switched to the previous condition. The DAB indicator blinks during the period of switching to the RDS station. (except for [F])
- Switching the reception from the RDS station to the DAB station causes switching the source mode to the DAB source. After this, every operation enters DAB mode. For selecting other FM/AM stations, switch the source mode to the TUNER source mode before selecting.
- If the tuner of the Control unit provides no RDS function, this function does not work.
- It takes at least 10 seconds after receiving the RDS signal to switch from the RDS station to the DAB service.

A B C D E F

Automatic Switching from DAB to RDS

Presently, the coverage areas of DAB stations are smaller than those of RDS

stations. Therefore, when the receiving condition of a DAB station deteriorates, the reception can be switched automatically to the RDS station broadcasting the same radio programme to minimize the sound interruption. The DAB indicator blinks during the period of switching to the RDS station.



- Display the menu mode using the control unit and select a setting item.
- Switching the setting.**
Switch the setting of menu items.
"SW RDS"/ "RDS CHG"/ "RDS"/ "Switching to RDS"
"ON": Functioning
"OFF": Not functioning
- Exit menu mode.

[E] group

Set this function on the DAB Setup Screen. (page 8)

NOTE

- When the receiving signal of the DAB station recovers, the reception can be switched to the DAB source.
- If the tuner of the Control unit provides no RDS function, this function does not work.

A B C D E F

DAB features of remote control

- **[TUNER] button (Switching Modes)**
Each press toggles between TUNER mode and DAB mode.
- **[SRC] / [SOURCE] button (Switching Modes)**
Each press switches the usable source modes in order.
- **[1] to [6] buttons (Preset Memory)**
Calls the services that have been stored to memory.

NOTE

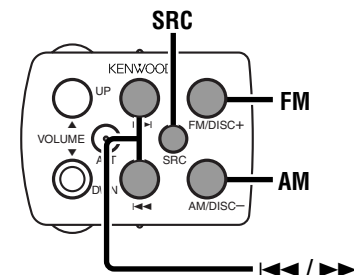
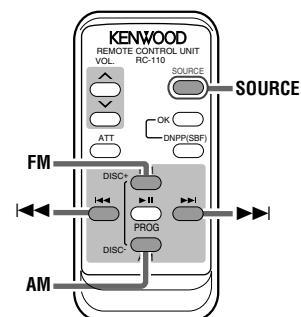
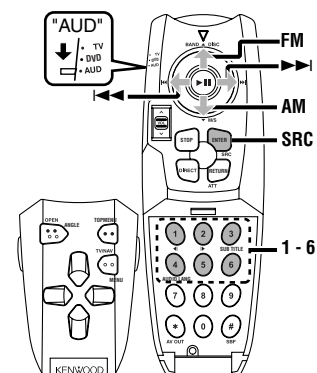
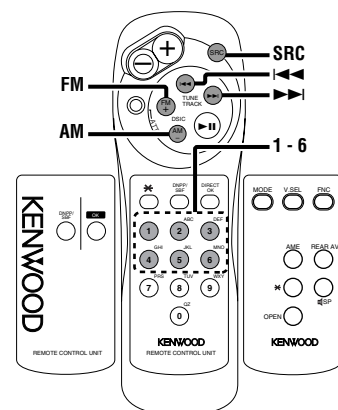
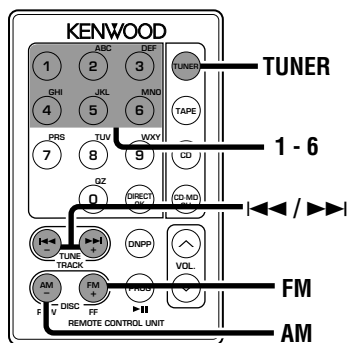
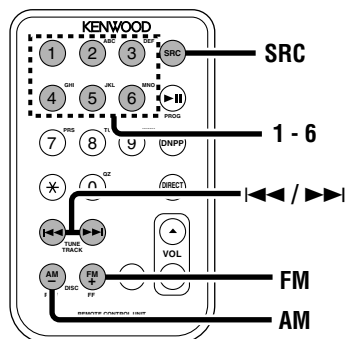
Operation can't be done with the **[B]** group.

- **[◀◀] / [▶▶] buttons (Service Switching)**
Pressing the [▶▶] button switches the services from within the Ensemble in order.
Pressing the [◀◀] button switches the services in the reverse order.

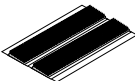
NOTE

The **[E]** KVC-1000 is ensemble switching.

- **[AM] button (Primary/Secondary Switching)**
Each press of the [AM] button switches between Primary/secondary within the services.
- **[FM] button (Preset Band Switching)**
Each press of the [FM] button switches one step among the DAB1, DAB2 and DAB3 bands.



Accessories

External view	Number of items	External view	Number of items
① 	1	⑦ 	1
② 	2	⑧ 	1
③ 	4	⑨ 	1
④ 	4	⑩ 	1
⑤ 	3	⑪ 	1
⑥ 	1	⑫ 	1

CAUTION

The use of any accessories except for those provided might result in damage to the unit.
Make sure only to use the accessories shipped with the unit, as shown above.

Installation Procedure

1. To prevent short circuits, remove the key from the ignition and disconnect the ⊖ terminal of the battery.
2. Install the DAB antenna and connect the antenna cable to the DAB hideaway tuner.
3. Connect the DAB hideaway tuner and the control unit using the provided DAB connection cable.
4. Make the proper input and output cable connections for each unit.
5. Install the unit in your car.
6. Reconnect the ⊖ terminal of the battery.
7. Press the reset button on the control unit.

CAUTION

- Do not connect the DAB control cable whilst the control unit is turned ON.
- Be sure to press the reset button on the control unit after installation.
- If your car is not prepared for this special connection-system, consult your Kenwood dealer.
- Make sure that all cable connections are securely made by inserting jacks until they lock completely.
- Do not let unconnected cables or terminals touch metal on the car or anything else conducting electricity. To prevent short circuits, also do not remove the caps on the ends of the unconnected cables or the terminals.
- Some disc changers need conversion cables for connection. See the section on "Safety Precautions" for details.

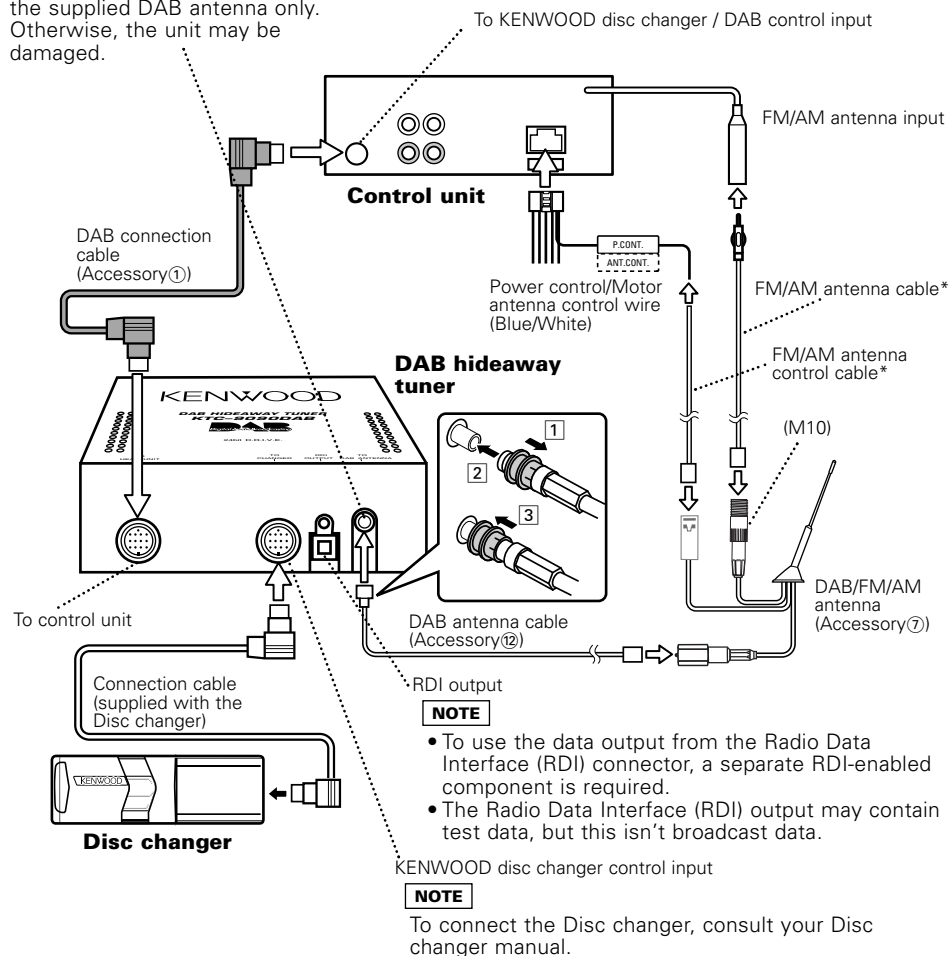
- Insulate unconnected cables with vinyl tape or other similar material.
- Be sure to use the provided DAB antenna (Accessory ⑦) as the DAB antenna. Using other antenna than provide may lead to malfunction.
- Take care so that the antenna cable and other connection cables are not caught by mobile parts. Otherwise cable disconnection or other trouble may result.
- Do not apply too much force on the antenna cable, other connection cables and connectors by bending a cable, etc. Otherwise cable disconnection or other trouble may result.
- Securely fasten the screws that fix the DAB antenna as well as the screws of the DAB antenna itself. Screws that loosen introduce the danger of the antenna coming apart during travel.
- DC voltage is output from the DAB antenna terminal of the DAB hideaway tuner to supply power to the DAB antenna. Be sure to connect the supplied DAB antenna only. Otherwise, the unit may be damaged.
- After the unit is installed, check whether the brake lamps, indicators, wipers, etc. on the car are working properly.

Connecting Cables to Terminals

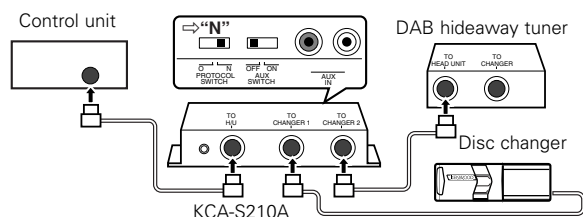
CAUTION

DC voltage is output from the DAB antenna terminal of the DAB hideaway tuner to supply power to the DAB antenna. Be sure to connect the supplied DAB antenna only. Otherwise, the unit may be damaged.

(*...commercially available)



If you want to connect KCA-S210A



Connect the KTC9090DAB to the terminal labelled TO CHANGER 2.

NOTE

Set the PROTOCOL selection switch to "N" position.

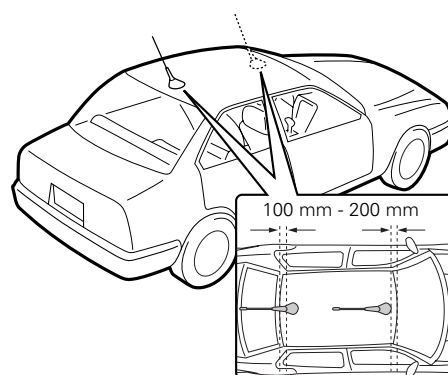
Installation

Mounting the DAB Antenna to the Roof

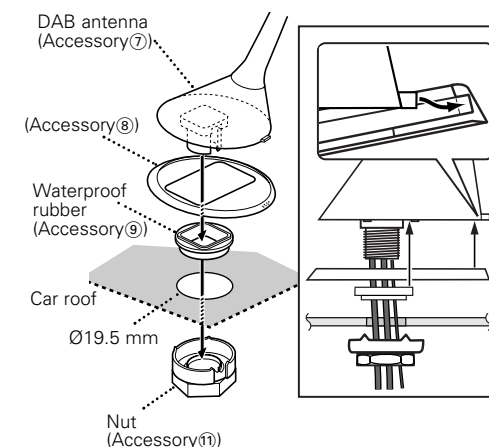
CAUTION

- Make a hole in the roof and mount the DAB antenna. Specialized knowledge is required for this job and an installer should be requested for the installation work.
- The DAB antenna should be mounted so that it does not protrude beyond the width and length of the car.
- Do not install at a spot where the roof is markedly curved. Doing so will allow water to enter from a gap between the roof and the waterproof rubber.
- Securely fasten the screws that fix the DAB antenna as well as the screws of the DAB antenna itself. Screws that loosen introduce the danger of the antenna coming apart during travel.

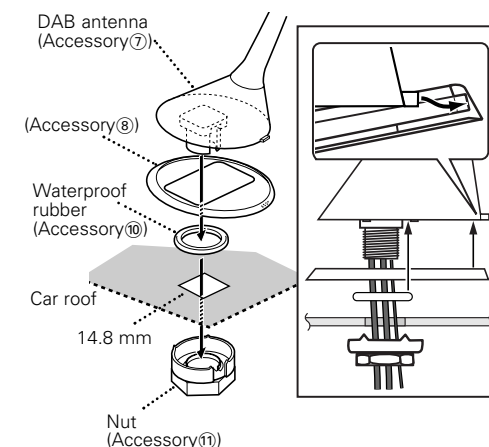
- Determine the mounting position of the DAB antenna. (It replaces with established FM / AM antenna.)
- Wipe away any dirt from the mounting position.
- Remove the lining in a place where you can make a hole in the roof. Make a $\varnothing 19.5\text{mm}$ round hole, or a 14.8mm rectangular hole in the roof.
- Mount the DAB antenna and fasten it by tightening the nut from the inside.
- Use a cable clamp to fix the antenna cable and perform the wiring as far as the DAB hideaway unit.



In the case of a round fixing hole



In the case of a rectangular fixing hole



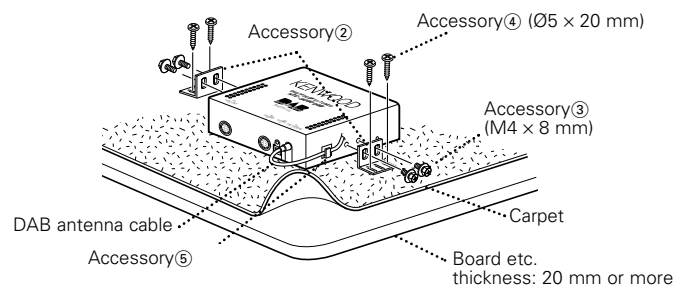
Installation

■ Mounting the DAB Hideaway Unit

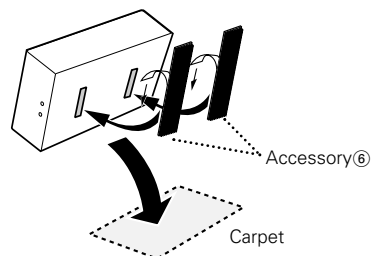
▲CAUTION

- Install the DAB hideaway unit in a well-ventilated location and do not place objects on top of it.
- When installing to the car, the unit should be securely fastened at a location that will not interfere with driving.
- When making a hole in the chassis, check that the gas tank, break pipe, wire harness, or other part is not located on the other side, and be careful not to cause scratches.
- When attaching the mounting fittings (Accessory②) to the DAB hideaway unit, use only the supplied mounting screws (Accessory③) (M4 × 8 mm). Use of screws other than those supplied may result in internal damage or insecure mounting and is very dangerous.

• Installation using the self-tapping screws



• Installation using the velcro tapes



Troubleshooting Guide

What might appear to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The DAB mode cannot be selected.	The DAB connection cable is not connected.	Use the DAB connection cable to connect the control unit and the DAB hideaway tuner.
	The PROTOCOL selection switch of the changer switching unit "KCA-S210A" is not set properly.	Set the PROTOCOL selection switch to "N" position.
The frequency is displayed, but no sound can be heard.	The DAB antenna is not connected.	Connect it properly by referring to "Connecting Cables to Terminals".
	The unit is outside the reception area.	Try receiving after you have entered the receiving area.
Nothing happens when the buttons are pressed.	The computer chip in the unit is not functioning normally.	Press the reset button on the Control unit .
No sound can be heard, or the volume is low.	The input/output cables or wiring harness are connected incorrectly.	Reconnect the input/output cables and/or the wiring harness correctly. See the section on "Connecting Cables to Terminals".
No switching to the Secondary with [B] and [F] group.	The language is set under the Language Filter Select Mode function.	Set the Language Filter to off or select another language.

Specifications

Specifications subject to change without notice.

DAB tuner section

Frequency range (L Band)	1452.960 MHz ~ 1490.624 MHz
(Band III)	174.928 MHz ~ 239.200 MHz
Usable sensitivity (L Band)	- 10 dBm ~ - 97.5 dBm
(Band III)	0 dBm ~ - 100 dBm
Mode	Mode I, II, III, IV

General

Operating voltage	14.4 V (11 ~ 16 V allowable)
Current consumption	450 mA
Installation size (W × H × D)	143 × 45 × 105 mm
Weight	537 g